

# **THE PERCEPTION OF ROAD PRICING POLICY (RPP) IN GEORGETOWN, PENANG**

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**THE PERCEPTION OF ROAD PRICING POLICY (RPP) IN GEORGETOWN,  
PENANG**

**by**

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## **LIST OF ABBREVIATIONS**

ARP	Area Road Pricing
ASEAN	Association of Southeast Asian Nations
BORR	Butterworth Outer Ring Road
CBD	Central Business District
DASH	Damansara-Shah Alam Highway
DBD	West East District (Daerah Barat Daya)
DoT	Department of Transport
DTL	East West District (Daerah Timur Laut)
DUKE	Duta-Ulu Kelang Highway
ECRL	East Coast Rail Link
EDL	East Dispersal Link Highway
EPU	Economic Planning Unit
ERP	Electronic Road Pricing
ERL	Express Rail Link
ETS	Electric Train Service
FDTCP	Federal Department of Town & Country Planning
FGD	Focus Group Discussion
GDP	Gross Domestic Products
GLC	Greater London Council

GNP	Gross National Product
HGV	Heavy Good Vehicles
HNDP	Highway Networks Development Plan
HSR	High Speed Rail
HPU	Highway Planning Unit
IMT-GT	Indonesia-Malaysia-Thailand Growth Triangle
ITS	Intelligent Transportation System
IU	In-Situ Unit
KIDEX	Kinrara-Damansara Expressway
KLIA	Kuala Lumpur International Airport
LDP	Damansara-Puchong Highway
LPAC	London Planning Advisory Council
LRT	Light Rail Transit
MHA	Malaysian Highway Authority
MoHLG	Ministry of Housing and Local Government
MRT	Mass Rapid Transit
MoW	Ministry of Works
NCER	Northern Corridor Economic Region
NPE	New Pantai Expressway
PORR	Penang Outer Ring Road
PWD	Public Work Department

RDI	Road Development Index
RMK	Rancangan Malaysia
RPP	Road Pricing Policy
SDO	State Development Office
SILK	Sistem Lingkaran Lebuhraya Kajang Sdn, Bhd
SKLIA	Paroi-Senawang-KLIA
SOV	Single Occupancy Vehicles
SPAD	Ministry of Works and Land Public Transport Commission
SPSS	Statistical Package For Social Science
SKVE	Klang Valley South Highway
SUKE	Sungai Besi-Ulu Kelang
TDM	Traffic Demand Management
USD	United States Dollar equals
UNESCO	The United Nations Educational, Scientific and Cultural Organisation

# **PERSEPSI DASAR PERLETAKAN HARGA JALAN (RPP) DI GEORGETOWN, PULAU PINANG**

## **ABSTRAK**

Kesesakan trafik di dalam Bandar merupakan satu masalah signifikan yang berlaku di kebanyakan tempat di dunia. Bandar-bandar besar di Malaysia seperti Kuala Lumpur, Georgetown dan Johor Bharu sedang menghadapi masalah kesesakan trafik yang serius. Dasar yang di formulasi untuk mengatasi masalah ini bertumpu kearah pengurusan pembekalan, pembinaan jalan-jalan baru, lebuhraya, jalan bertingkat dan pembesaran jalan. Terdapat pihak yang berpendapat bahawa alternatif yang lebih sesuai mesti diberi penekanan terhadap aspek pengurusan permintaan. Dasar yang lebih berani, radikal dan kurang digemari yang terangkum dibawah Pengurusan Permintaan Perjalanan (*Travel Demand Management*) iaitu dasar pengenalan caj penggunaan jalan boleh dipertimbangkan. Akta Tanah dan Pengangkutan Darat 2010 menggariskan cadangan dasar perletakan harga jalan dibandar yang dipilih sebagai penyelesaian untuk mengurangkan kesesakan trafik bandar. Rancangan Tempatan untuk bahagian pulau, Pulau Pinang pula telah menggariskan dasar ini digunapakai sebagai satu kaedah untuk menambahbaik kesesakan trafik Bandar apabila suatu sistem pengangkutan pengangkutan awam yang cekap dilaksanakan. Walaubagaimanapun, usaha kearah perlaksanaan dasar tersebut tidak diambil serius. Sehubungan dengan itu, tesis ini mengkaji tentang persepsi dan penerimaan penggubal dasar dan orang awam mengenai pengenalan dasar perletakan harga jalan di Georgetown, Pulau Pinang. Kajian ini bertujuan menganalisis masalah kesesakan trafik bandar, penerimaan dan perlaksanaan dasar perletakan harga jalan. Dalam kes ini, pengalaman bandar-bandar besar seperti

Singapura , London dan Tokyo telah dikaji untuk mengenalpasti kelebihan dan kelemahan dalam pelaksanaan dasar ini. Kaedah campuran iaitu kajian secara kuantitatif dan kualitatif telah digunakan untuk mencapai matlamat dan objektif kajian. Kaedah soalselidik telah dilaksanakan dikalangan penduduk dan kajian yang dikendalikan sendiri dijalankan dikalangan penggubal polisi untuk mengetahui persepsi dan sikap mereka terhadap penerimaan dasar pengenaan caj penggunaan jalanraya. .Dapatan-dapatan dari kajian ini memberi pandangan mendalam tentang halangan-halangan kepada penerimaan terhadap polisi perletakan harga jalan seperti sikap para pengguna dan penggubal dasar, penggunaan hasil, ketidakadilan kepada kumpulan berpendapatan rendah, perlakuan perjalanan dan isu-isu rekabentuk/susunatur. Selain dari itu, terdapat beberapa faktor kejayaan juga dikenalpasi jika dasar penetapan harga penggunaan jalanraya diperkenalkan seperti faedah dan kekuatan dasar, masalah trafik yang menekan, alternatif kepada dasar sediaada, serta matlamat dan objektif yang jelas dan telus. Ringkasnya, hasil kajian ini diharapkan menyumbang kepada pelaksanaan dasar perletakan harga penggunaan jalan di Georgetown, Pulau Pinang setelah pihak awam dan pembuat dasar menerima konsep ini.

# **THE PERCEPTION OF ROAD PRICING POLICY IN GEORGETOWN, PENANG**

## **ABSTRACT**

Urban traffic congestion is a significant problem which is happened in many parts of the world. Cities in Malaysia such as Klang Valley, Georgetown and Johore Bharu are facing serious urban traffic problem. The policies which are formulated to overcome this problem focusing on supply side of management; the construction of new roads, highway, fly-over and roads / highways widening. There are arguments by the experts that policy option must emphasis on demand side of management. A bold, radical and unpopular policy such as road pricing policy (RPP) from the instrument of Travel Demand Management (TDM) can be considered seriously. Land Public Transport Act 2010 outlines the proposal to establish road pricing policy within any designated area in Malaysia as a solution to reduce urban traffic congestion. Local Plan for Penang Island has outlined that the policy will be implemented in Georgetown as a tool to improve urban traffic congestion once an efficient public transport system is implemented. However, it seems that measure to work on the implementation of road pricing policy is not taken seriously. Therefore, this thesis examines the perception and acceptability of public/road users and policy makers in Georgetown, Penang, towards the introduction of road pricing policy. This research aims to analyse the problem of urban traffic congestion, perception, acceptability and implementation of road pricing policy (RPP). In this case, the experiences of big cities such as Singapore, London and Tokyo were examined to determine their strengths and weaknesses in implementing RPP. Mixed

methods of quantitative and qualitative research were adopted to achieve the aims and objectives as outlined. Survey method was employed amongst the residents/road users and self-administered survey was applied amongst policy makers to explore their perceptions and attitudes towards the acceptability of RPP. The findings of this research have provided some insights on the barriers of acceptability towards road pricing policy such as the attitude of the road users and policy makers, the use of the revenue, unfairness to low income group, travelling behavior and design/layout issues. Besides that, there are successful factors identified if road pricing policy is introduced such as efficiency benefits, pressing traffic problem, alternative to the available policy, clear and transparent of aim and objectives. In short, the result of this research will contribute to the implementation of road pricing policy in Georgetown, Penang once the acceptability is gained from the public/road users and policy makers.

# **CHAPTER ONE**

## **INTRODUCTION**

### **1.1 Introduction**

This thesis presents the results of an investigation into the acceptability of road pricing policy (RPP) as a tool to reduce urban traffic congestion, with particular reference to the city of Georgetown, Penang, Malaysia. The investigation focuses on the perception of road users and policy makers towards urban traffic congestion issues, and their attitude towards the introduction and adoption of Road Pricing Policy (RPP).

As the first chapter of the thesis, this chapter is presented as such to familiarize readers with the subject and purpose of the overall research. It provides the overview of the research topic, fundamentals of the research and outlines the research structure. The research's aims, objectives and research questions are presented in such a way to maintain consistency of the study. The parameter of the research scope and limitation is discussed and the significance of the research is also underlined. The organization of the thesis is outlined to give a broad picture of the overall content of the thesis.

### **1.2 Research Background**

A transport system as stated by Hoyle and Smith (1992) is a complex relationship that exists between the physical environment, pattern of social and political activity and level of economic development. This argument over the relationship between transport and development has been a long standing debate by